Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	**)**	
	)	
IP-Enabled Services	**)**	**WC Docket No. 04-36**

Comments of
Self Help for Hard of Hearing People, SHHH[1]

SHHH is pleased to submit comments in response to the Notice of Proposed Rulemaking related to IP-Enabled Services. The focus of our comments is on disability access and specifically access for people with hearing loss.

The Commission seeks comment on whether the rules established in sections 255 and 251(a)(2) (Disability Access Order) apply in the context of VoIP or other IP-Enabled services. Section 255 of the Telecommunications Act of 1996 mandates that telecommunications products and services be accessible to people with disabilities.[2] These provisions can and must apply to VoIP and IP-Enabled services. SHHH believes that it is critical to carry disability access provisions forward to cover all types of IP-enabled services, not just telephony, to provide complete, equal access to the fullest extent possible. Without FCC regulation of IP-Enabled services, people with disabilities

---

[1] Self Help for Hard of Hearing People, SHHH, is the nation's foremost consumer organization representing people with hearing loss. SHHH's national support network includes an office in the Washington D.C. area, 13 state organizations, and 250 local chapters. The SHHH mission is to open the world of communication to people with hearing loss through information, education, advocacy, and support. SHHH provides cutting edge information to consumers, professionals and family members through their website, www. hearingloss.org, their award -winning publication, *Hearing Loss,* and hearing accessible national and regional conventions. SHHH impacts accessibility, public policy, research, public awareness, and service delivery related to hearing loss on a national and global level.

[2] 47 U.S.C. § 255 (2000)

will not have access to these emerging technologies. We are talking about a significant portion of the population – one in five people in the United States have some form of disability and one in ten of the population (28 million)[3] has some degree of hearing loss. However, people with disabilities have never constituted a market that would normally motivate companies to innovate. Without Commission regulation requiring accessibility, innovation will be geared to profit, not the public good, as has been demonstrated time and again in the past.

The Commission seeks comments on how to apply the disability accessibility requirements of Sections 255(a)(2) and 255 to VoIP and other IP-enabled services providers.

Specific forward-looking compliance standards and regulations should be developed through the collaboration of key stakeholders - industry, consumer representatives, and government agencies. Representatives of consumers with disabilities can provide information on the key factors that need to be taken into consideration in developing effective access standards. In Attachment A SHHH lists key features that people with hearing loss need for access. Some of the features are ones we currently receive on the public switched network (PSTN) and do not want to lose such as, a clear signal, accurate transmission of TTY tones, call signaling, transmission of touch tones without distortion, access to custom calling features, and reliability. The Commission and all users will need to consider the reliability of VoIP. Steps to strengthen the reliability of broadband or other pathways of transmission need to be considered as well as necessary regulations to

[3] National Institute on Deafness and Other Communication Disorders (NIDCD)

make that happen, so that the system would not be subject to failure should there be a power-outage.

Other features that we have listed in Appendix A that are needed for access for people with hearing loss are forward-looking but feasible given the convergence of voice, data, and video that characterizes VOIP. It is generally agreed that IP-Enabled services offer exciting potential in creative ways for people with disabilities to communicate but will only happen if the Commission establishes a regulatory framework that requires VoIP and IP-Enabled services providers to meet the social obligations and public interest goals that Congress has repeatedly confirmed.

Consumers with hearing loss will continue to need telecommunications relay services (TRS) in some shape or form until such time as innovative solutions using computer-based equipment that replicates accessible telecommunications functionality is developed. In the meantime, IP-Enabled TRS should meet the ADA accessibility guidelines providing, for example, VCO capability. Today CapTel, for VCO users, and VRS for people who use sign language, are the two preferred ways to use TRS. Internet relay is also popular, especially for people sitting at a computer terminal at work, who are comfortable typing, and more especially because all calls are free. CapTel and VRS bring us closer to functional equivalency with voice calls. VRS is an IP-enabled service with calls that are seamless and quicker than traditional TRS. Many people who use sign language want this to be the new standard for TRS. CapTel is the preferred TRS for VCO users, who are the majority of people with hearing loss, including those one in three of

the population who lose their hearing after age 65. It is not definite yet whether CapTel will work with VoIP. But the concept, the ability to hear and read the conversation at the same time, is the ideal way for people with some hearing to function most effectively on the phone. VCO customers like it and will most definitely want to be able to continue to communicate in this way over VoIP. It may be made even more attractive with the addition of video to allow for speech reading.

For those few people who continue to use the traditional TTY-based TRS, which is based on old technology, there should be a gradual and sensitive migration from Baudot to broadband. Standards for the design and development of a bridging mechanism, with an error rate no higher than with PSTN, need to be developed as an interim solution to allow people to continue to use traditional TRS for as long as necessary.

The Commission seeks comment on whether VoIP and IP information services should be considered information or telecommunication services.

From a disability perspective the outcome that is critical is access. Whether the Commission decides that VoIP is an information or telecommunication service, the bottom line is that it must be accessible to people with disabilities. And we repeat here again, that given the historical pattern, access has without exception come about only as a result of regulation. Therefore some regulatory framework is necessary to make access to VoIP a reality. In the past the Commission exercised its ancillary jurisdiction over information services to require Section 255 obligations of providers of voicemail and

interactive menu services, both of which were considered "information services." The Commission decided, rightly so, that if voicemail and interactive menus were not accessible then individuals with disabilities would not have access to telecommunications services and would not be able to complete a call. This is a precedent that should be followed with VoIP. The Commission should also extend its ancillary jurisdiction to cover all IP-Enabled services, since these services may be necessary to access VoIP services. Failure to extend the coverage of Section 255 to IP-Enabled services would undermine the original intent of Section 255. As the telecommunications industry shifts toward VoIP and away from traditional switched access phone service, anyone who does not have access will be relegated to a lower class and discriminated against as far as being able to enjoy the same benefits and advances as those people who do not have barriers to access. SHHH urges the Commission to move with urgency on this decision or we will see a repeat of a scenario that is all too familiar to people with disabilities – innovative telecommunications services and products rolled out that are inaccessible and unusable.

Thank you for the opportunity to comment on this important proceeding.

Respectfully submitted,

Terry D. Portis Ed.D
Executive Director
SHHH
tportis@hearingloss.org

May 27, 2004

ATTACHMENT A
SHHH Comments. IP-Enabled NPRM. WC Docket No. 04-36

Features that People who are Hard of Hearing Need for Access to VoIP and IP-Enabled Services

- Clear, strong, high quality signal for speech intelligibility
- Adequate volume control easily manipulated
- Telecoil compatibility without interference
- Simultaneous voice and text display with adjustable font sizes
- Audio output jack with sufficient power for neck loop, headset, or other couplers for two-ear listening
- High quality video optimized for speech reading (30 frames per second, or faster)
- Simultaneous video and audio to combine speech reading and audio signal
- Ability to add text to voice call in midstream of incoming calls
- Ability to initiate three-way calling at any time, for both incoming and outgoing calls
- Emergency services made accessible in realtime through video, voice and text
- Ability to connect Internet relay services to the call at any time
- Compatibility with user's own speech recognition software to enable hearing callers to use their own speech recognition software to transcribe their speech